

## PMH33

**COST-EFFECTIVENESS OF ARIPIRAZOLE FOR THE MANAGEMENT OF SCHIZOPHRENIA IN THE UNITED KINGDOM**Davies A<sup>1</sup>, Vardeva K<sup>2</sup>, Loze JY<sup>3</sup>, L'Italien GJ<sup>4</sup>, Sennfalt K<sup>5</sup>, Pugner K<sup>6</sup>, van Baardewijk M<sup>6</sup><sup>1</sup>Oxford Outcomes (UK), Oxford, England, <sup>2</sup>Bristol-Myers Squibb, Uxbridge, UK, <sup>3</sup>Otsuka Pharmaceutical France, Paris, France,<sup>4</sup>Bristol-Myers Squibb, Wallingford, CT, USA, <sup>5</sup>Bristol-Myers Squibb, Bromma, Sweden, <sup>6</sup>Bristol-Myers Squibb, Braine l'Alleud, Belgium

**OBJECTIVE:** To evaluate the cost-effectiveness of atypical antipsychotic treatment sequences for the management of stable schizophrenia in the UK. **METHODS:** A Markov model was developed to assess the cost per quality adjusted life year (QALY) gained from 12 alternative treatment sequences each containing two atypical antipsychotics (aripiprazole (ARI), olanzapine (OLZ), quetiapine (QTP), and risperidone (RSP)), followed by clozapine. The main model parameters were populated with data from the CATIE study, which provides a direct comparison of the effectiveness of OLZ, QTP and RSP, a recent trial of ARI compared with OLZ in the long-term treatment of schizophrenia, and a recent study of diabetes incidence in atypical treated patients. Patients enter the model with stable schizophrenia. On each treatment patients may relapse, discontinue, or continue and experience adverse events (extrapyramidal symptoms, weight gain, hyperprolactinemia), or develop diabetes. Population mortality was adjusted for schizophrenia and diabetes. Utility decrements applied to stable schizophrenia, relapse, diabetes, and treatment related adverse events were taken from a direct UK utility elicitation study. Dosing for OLZ, QTP, and RSP was based on CATIE. ARI is flat priced within the ranges of 5–15 mg and 20–30 mg; we assumed a simple average of these doses. Resource use and unit costs were taken from published sources. A time horizon of 10 years was adopted. **RESULTS:** ARI followed by RSP produced the greatest number of QALYs, an additional 0.03 compared to RSP followed by OLZ, at an incremental cost of £222 (incremental cost per QALY: £7942). ARI followed by RSP had the greatest probability among evaluated sequences of being cost effective at a threshold of £10,000 per QALY or higher. **CONCLUSION:** First-line atypical treatment with aripiprazole offers a cost-effective option for patients with stable schizophrenia.

## PMH34

**TREATMENT OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD): ESTIMATING THE MAXIMUM ALLOWABLE COST OF PSYCHOSOCIAL INTERVENTIONS IN THE UNITED STATES, GERMANY, THE NETHERLANDS, SWEDEN, AND THE UNITED KINGDOM**Schlander M<sup>1</sup>, Schwarz O<sup>1</sup>, Hakkaart-van Roijen L<sup>2</sup>, Jensen PS<sup>3</sup>, Persson U<sup>4</sup>, Santosh PJ<sup>5</sup>, Trott GE<sup>6</sup><sup>1</sup>Institute for Innovation & Valuation in Health Care (InnoVal-HC), Eschborn, Germany, <sup>2</sup>Erasmus MC, Rotterdam, Netherlands,<sup>3</sup>Columbia University, New York, NY, USA, <sup>4</sup>The Swedish Institute forHealth Economics, IHE, Lund, Sweden, <sup>5</sup>Institute of Child Health—Great Ormond Street Hospital, London, UK, <sup>6</sup>University of Wuerzburg, Aschaffenburg, Germany

**OBJECTIVE:** ADHD is the most common behavioral disorder of childhood and adolescence in the US and Europe. The NIMH-initiated MTA Study still is the clinical landmark trial in the field, including 579 children age 7–9.9 years with ADHD (DSM-IV), who were randomly assigned to 14 months of medication management (MedMgt), intense behavioral treatment (Beh), both combined (Comb), or community care (CC). All MTA treatment strategies were clinically effective. The intensity of the MTA Beh

strategy, designed to maximize clinical effectiveness, resulted in disappointing incremental cost-effectiveness ratios, being invariably dominated by MedMgt. Applying current cost-effectiveness benchmarks, this study aimed to estimate the maximum allowable cost (MAC) of better-targeted psychosocial interventions, assuming they replicate the effectiveness achieved in the MTA Study. **METHODS:** For costing, medical resource utilization data from the MTA, excluding its research component, were combined with unit costs (year 2005) from a societal and from a third-party payer's perspective for the United States as well as for Germany, Netherlands, Sweden, and UK. Treatment response was defined as normalization of core symptoms. QALYs were estimated using utility weights derived from expert and parent-proxy-ratings. **RESULTS:** MACs for Beh were determined (a) for ADHD and for subgroups (b) with “pure” ADHD (without co-morbidity, n = 184) and (c) hyperkinetic disorder (HKD, with or without conduct disorder, n = 145), assuming (1) Beh meeting the ICERs of MedMgt (versus CC), or meeting an ICER threshold (when added to MedMgt) of (2) €50,000 or (3) €100,000 per QALY. MACs (US) were (1) €1130, (2) €2470, and (3) €3720 (exchange rate [2005]: USD\$1 = €0.85). Estimates for Germany and Netherlands were broadly similar, whereas British and Swedish estimates were substantially higher, up to (1) €2250, (2) €3600, and (3) €5420. **CONCLUSION:** Despite limitations, these estimates may assist clinical study planners aiming at showing acceptable cost-effectiveness of psychosocial treatment strategies for ADHD.

## PMH35

**COST-EFFECTIVENESS OF ORALLY DISSOLVING OLANZAPINE TABLETS IN THE TREATMENT OF SCHIZOPHRENIA IN THE USA**Ascher-Svanum H<sup>1</sup>, Furiak NM<sup>2</sup>, Klein RW<sup>2</sup>, Smolen LJ<sup>2</sup>, Watson PR<sup>1</sup>, Lawson AH<sup>1</sup><sup>1</sup>Eli Lilly and Company, Indianapolis, IN, USA, <sup>2</sup>Medical Decision Modeling, Inc, Indianapolis, IN, USA

**OBJECTIVE:** To assess the cost-effectiveness of olanzapine orally dissolving tablets (ODT) and olanzapine standard oral tablets (SOT) during the usual treatment of schizophrenia patients from a U.S. health care perspective. The model also compared olanzapine ODT with other antipsychotics in SOT and ODT formulations. **METHODS:** Published medical literature, unpublished data, and a clinical expert panel were used to populate a one-year micro-simulation model comparing olanzapine ODT with olanzapine SOT, and with other antipsychotics in SOT (risperidone, quetiapine, ziprasidone, aripiprazole and perphenazine) and ODT formulations (risperidone and aripiprazole). The model captures clinical and cost parameters including adherence levels, treatment discontinuation by reason, relapse with and without inpatient hospitalization, quality-adjusted life years (QALYs), treatment-emergent adverse events, health care resource utilization and associated costs. Key results were annual direct cost per treatment and incremental cost-effectiveness values per one inpatient relapse avoided and per one QALY gained. **RESULTS:** Based on model projections, olanzapine ODT therapy was slightly more costly (\$9674 vs. \$9602) but more effective in terms of a lower hospitalization rate (14% vs. 16%) and better QALY (0.78 vs. 0.75) than olanzapine SOT therapy, with favorable incremental cost per inpatient relapse avoided (\$2157) and QALY gained (\$2454). Olanzapine ODT was more cost-effective than olanzapine SOT and also more cost-effective compared to other comparators. **CONCLUSION:** The utilization of olanzapine ODT for the treatment of schizophrenia is predicted in this model to be more cost-effective than olanzapine in standard oral tablets and more cost-effective than other comparators in either orally dissolving tablet or standard tablet formulations.